

**Project WET
Connections to
KY Core Content 4.1**

Cold Cash in the Icebox p.373

Elementary

Mathematics

MA-04-1.2.1

Students will apply and describe appropriate strategies for estimating quantities of objects and computational results.

DOK 2

MA-EP-4.1.1

Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs with two or three sectors, line plots, two-circle Venn diagrams).

DOK 3

MA-04-4.1.1

Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs, line plots, Venn diagrams).

DOK 3

MA-05-4.1.1

Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs, line plots, Venn diagrams, line graphs).

DOK 3

MA-EP-4.1.2

Students will collect data.

MA-04-4.1.2

Students will collect data.

MA-05-4.1.2

Students will collect data (e.g., tallies, surveys) and explain how the skills apply in real-world and mathematical problems.

MA-EP-4.1.3

Students will organize and display data.

MA-04-4.1.3

Students will construct data displays (pictographs, bar graphs, line plots, Venn diagrams, tables).

DOK 2

MA-05-4.1.3

Students will construct data displays (pictographs, bar graphs, line plots, line graphs, Venn diagrams, tables).

DOK 2

Practical Living

PL-05-3.1.2

Students will identify major factors (price, quality, features) to consider when making consumer decisions and will compare and evaluate products and services based on these factors.

DOK 2

Science

SC-04-4.6.5

Students will:

- identify ways that heat can be produced (e.g. burning, rubbing) and properties of materials that conduct heat better than others;
- describe the movement of heat between objects.

Heat can be produced in many ways such as burning or rubbing. Heat moves from a warmer object to a cooler one by contact (conduction) or at a distance. Some materials absorb and conduct heat better than others. Simple investigations can illustrate that metal objects conduct heat better than wooden objects.

DOK 2

SC-05-4.6.5

Students will understand that heat energy moves in predictable ways, flowing from warmer objects to cooler ones, until both objects reach the same temperature. By examining cause and effect relationships, consequences of heat movement and conduction can be predicted and inferred.

Social Studies

SS-EP-5.2.3

Students will describe change over time in communication, technology, transportation and education in the community.

SS-04-5.2.3

Students will compare change over time in communication, technology, transportation and education in Kentucky. DOK 3

SS-05-5.2.3

Students will compare change over time (Colonization, Industrialization, Twentieth Century to Present) in communication, technology, transportation and education.

DOK 3

Middle School

Mathematics

MA-08-2.1.4

Students will apply formulas to determine the volume of right rectangular prisms in real-world problems.

DOK 2

MA-06-4.1.1

Students will analyze and make inferences from data displays (drawings, tables/charts, pictographs, bar graphs, circle graphs, line plots, Venn diagrams, line graphs, stem-and-leaf plots).

DOK 3

MA-07-4.1.1

Students will analyze and make inferences from data displays (drawings, tables/charts, pictographs, bar graphs, circle graphs, line plots, Venn diagrams, line graphs, stem-and-leaf plots, scatter plots).

DOK 3

MA-08-4.1.1

Students will analyze and make inferences from data displays (drawings, tables/charts, pictographs, bar graphs, circle graphs, line plots, Venn diagrams, line graphs, stem-and-leaf plots, scatter plots, histograms, box-and-whiskers plots).

DOK 3

Practical Living

PL-06-3.1.2

Students will describe factors (brand name, price, quality, features, availability) to consider when making consumer decisions and will compare and evaluate products and services based on these factors.

DOK 2

PL-07-3.1.2

Students will describe factors (brand name, price, quality, features, availability) to consider when making consumer decisions and will compare and evaluate products and services based on these factors.

DOK 3

PL-08-3.1.2

Students will explain factors (brand name, price, quality, features, availability) to consider when making consumer decisions and will compare and evaluate products and services based on these factors.

Science

SC-07-4.6.2

Students will:

- describe the transfer and/or transformations of energy which occur in examples that involve several different forms of energy (e.g., heat, electrical, light, motion of objects and chemical).
- Explain, qualitatively or quantitatively, that heat lost by hot object equals the heat gained by cold object.

SS-06-4.4.1

Students will explain how technology in the present day assists human modification (e.g., irrigation, clearing land, building roads) of the physical environment in regions.

DOK 2

Social Studies

SS-07-4.4.1

Students will explain how technology in early civilizations prior to 1500 A.D. assisted human modification (e.g., irrigation, clearing land, building roads) of the physical environment.

DOK 2

SS-08-4.4.1

Students will explain how technology in the United States prior to Reconstruction assisted human modification (e.g., irrigation, clearing land, building roads) of the physical environment.

High School

Mathematics

MA-HS-1.2.1

Students will estimate solutions to problems with real numbers (including very large and very small quantities) in both real-world and mathematical problems, and use the estimations to check for reasonable computational results.

MA-HS-2.1.1

Students will determine the surface area and volume of right rectangular prisms, pyramids, cylinders, cones and spheres in real-world and mathematical problems.

MA-HS-2.2.1

Students will continue to apply to both real-world and mathematical problems U.S. customary and metric systems of measurement.

MA-HS-4.1.1

Students will analyze and make inferences from a set of data with no more than two variables, and will analyze problems for the use and misuse of data representations.

MA-HS-4.1.2

Students will construct data displays for data with no more than two variables.
DOK 2

MA-HS-4.3.2

Students will design simple experiments or investigations to collect data to answer questions of interest.

Practical Living

PL-HS-3.1.2

Students will compare products and services based on various factors (e.g., price, quality, features, availability, warranties, comparison shopping,) to consider when making consumer decisions.

Science

SC-HS-4.6.7

Students will:

- explain real world applications of energy using information/data;
- evaluate explanations of mechanical systems using current scientific knowledge about energy.

The universe becomes less orderly and less organized over time. Thus, the overall effect is that the energy is spread out uniformly. For example, in the operation of mechanical systems, the useful energy output is always less than the energy input; the difference appears as heat.

DOK 2

Social Studies

SS-HS-4.4.1

Students will explain how humans develop strategies (e.g., transportation, communication, technology) to overcome limits of their physical environment